
NORTHUMBERLAND & DURHAM
MEDICAL SOCIETY.

NOVEMBER 9, AND DECEMBER 7, 1882.

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NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

THE SECOND MONTHLY MEETING was held on Thursday, November 9th, 1882, in the Library of the Newcastle-on-Tyne Infirmary—the President (Dr. Arnison) in the chair.

The following gentlemen were elected members of the Society:—

W. H. Hepburn, F.F.P.S.G., L.S.A., Coxhoe.

John Todd, M.R.C.S. Eng., L.S.A., Gateshead.

The following gentlemen were proposed for election:—

A. E. Harris, L.R.C.P. & S. Edin., Sunderland.

C. S. Kilham, M.R.C.S. Eng., L.R.C.P. Lond., Chester-le-Street.

John Whitehouse, M.R.C.S. Eng., Sunderland Infirmary.

Hugh Hopper, L.R.C.S. Edin., Felling-on-Tyne.

E. F. Flynn, L.R.C.S.I., Sunderland Infirmary.

PREVALENT DISEASES OF THE DISTRICT.

Mr. HENRY E. ARMSTRONG submitted the following:—

Return of Admissions to and Deaths at the Newcastle Fever Hospital during the month of October, 1882.

	Admitted.	Died.
Smallpox.....	48	5
*Chicken Pox	2	0
Typhus Fever.....	19	3
Enteric Fever.....	1	0
Totals..	70	8

* Sent to Hospital as cases of Smallpox.

Dr. OLIVER said it was his sad duty to inform the society of the death of one of its members, Dr. Robert Smith, whom he had seen in consultation with his brothers. Dr. Smith, who was one of the assistant surgeons at the Newcastle Dispensary, caught typhus fever whilst visiting a patient in Byker, and he died on the 14th day of the illness, from pneumonia, at his brother's house at Whickham.

PATHOLOGICAL TRAY.

Mr. PAGE said: This interesting specimen, sir, was removed (together with the breast) from the left side of a young woman, a domestic servant, aged 20 years, on October 17th, 1882. The

points I wish more particularly to direct attention to are: 1st, the position of the tumour—it is easily seen the growth is superficial to the gland substance, from which, indeed, it is separated by a well-defined capsule; 2nd, the appearance of the tumour on section. To me the naked eye appearance would suggest that this is a sarcomatous growth, and its situation and the age of the patient would tend to strengthen that view of its nature. It arose without any injury, and has been two years in attaining its present size. A short time before its appearance, a growth, the nature of which I am unable to ascertain, was removed from the young woman's face by Dr. Peart of North Shields; and this circumstance, too, in the history of the case is somewhat a suspicious one. However, Dr. Hume has examined the tumour microscopically, and, as Dr. Hume is present, perhaps he will be kind enough to give us some detailed description of the histology of the sections I have placed under the microscope, and for which I am further indebted to him.

Dr. DRUMMOND, in Dr. McDowall's absence, showed the brain of a general paralytic.

Dr. HUME showed a cancerous tumour of the bowel, involving the sigmoid flexure of the colon, which had been removed from the body of a lady aged 69. The patient was attended in consultation with Mr. James Smith, who had been at first called to the case on account of symptoms of indigestion and obstinate constipation. When the patient was seen on October 12, no motion had been passed for eleven days. Examination, per rectum, detected a mass apparently embracing the sigmoid flexure, and extending towards the middle line of the body, and towards the left inguinal region, in which small masses, like enlarged glands, could be felt externally. Left lumbar colotomy was performed. When the bowel was opened a small quantity of faecal matter escaped, and during the after part of the day of operation, and on subsequent days, the discharge of faeces was so copious as to be a cause of great trouble in the management of the wound. The patient promised well for a few days, but on the fifth day she was not so well, the pulse became irregular, and the wound showed no sign of healthy granulation. A slight tendency to vomit was aggravated into confirmed vomiting by a strong dose of carbolic lotion administered by mistake. The temperature never rose above 100° Fah., but strength became gradually exhausted, and death took place on the morning of the tenth day. At the *post mortem* examination there were found some comparatively slight evidences of recent peritonitis, as well as much firm lymph of older date, matting together the coils of intestine. The omentum and mesentery were studded with hard nodules, afterwards found to be cancerous. The mass which involves the sigmoid flexure extends

throughout the whole length of that part of the bowel. The narrowing of the bowel is gradual, traced either from above, downwards, or from the rectum upwards to a point where, in the centre of the mass, the canal is completely obliterated. The tumour extends laterally towards the bladder, and towards the peritoneum in the hollow of the ilium. Under the microscope sections of both the nodules referred to and of the main tumour show the ordinary structure of gland carcinoma.

Dr. ANDERSON (Cramlington) asked whether any untoward effects had been observed from the carbolic acid swallowed.

Dr. HUME, in reply, said no particular change was made out in the stomach, but the urine was distinctly dark and smoky.

Mr. GOYDER said : Mr. President and gentlemen,—The specimen which I now show you, a mammary cancer with cancerous axillary glands, has, I fear, suffered from immersion in spirit, and has contracted so much that it is now fully one-third less in size than upon the day of its removal. It is simply an example of mammary cancer, but it derives interest from the clinical features of the case. The patient from whom I removed it is 49 years of age, and has borne two children. She states that two years ago there appeared, without apparent cause, a small “lump,” which gradually increased in size up to September, 1881, when she consulted a medical man, who told her she was suffering from an abscess. He subsequently tapped the swelling and withdrew some fluid. The wound not healing under various forms of treatment, including compression by bandages, the patient consulted another medical man, who tapped again, injected with various substances, inserted a tube, and finally stated his belief that the growth was a malignant one. Upon examination, there was a hard tumour, freely moveable, however, occupying the whole of the left breast. A sinus, which was present near the retracted nipple, led down to a cavity the size of a walnut with rigid walls, and secreting a thin serous and oftentimes bloody fluid. There was great fœtor, and the axillary glands, although large, were freely moveable. The patient was recommended to have the breast and glands excised, an operation which she underwent on October 8th. There was nothing to note regarding the operation ; the patient, however, made a rapid recovery, and the wound healed by first intention. Deep sutures were used ; drainage tubes and carbolic oil dressing. Patient was up on the 14th day, and walking about. The case seems to be one of hard cancer, the central portion of the growth softening and breaking down. One remarkable thing was that the granulations lining the sinus appeared quite natural and free from infiltration or eversion of their edges.

Mr. MORGAN said he thought that accurate records of the histological characters of the tumours shown were much needed, so that they might be considered along with the results of the operations.

On Mr. PAGE's proposition, a sub-committee, consisting of Dr. Oliver, Mr. Williamson, and the Secretary (Dr. Drummond) was appointed to examine pathological specimens microscopically.

Dr. DRUMMOND showed the liver of a man, aged 44, who was admitted into the Infirmary complaining of extreme debility, œdema of the lower extremities, and jaundice. His illness was of three years' duration, and had been marked more particularly by weakness, tendency to fall off to sleep during all hours of the day, and a gradually deepening jaundice. The liver, on physical examination, was found to be enlarged, almost smooth, and free from pain. The icteric discolouration was very pronounced, and the motions were clay-coloured, whilst the urine was deeply tinged with bile. The diagnosis arrived at was hypertrophic cirrhosis. The patient died a fortnight after admission with symptoms of cholœmia. At the *post-mortem* the liver was found to weigh but a few ounces heavier than usual, but the microscopical sections—one of which was to be seen under the microscope on the table—revealed the fact that the connective tissue of the organ was much increased, and especially about the minute bile ducts. In other words, the disease was of the nature of the so-called *hypertrophic cirrhosis*.

Dr. LUKE ARMSTRONG showed (1) a knitting-needle removed by operation from the perineum of a man who had forced it into his urethra; (2) a scrofulous kidney removed from the body of a patient who died recently in the Infirmary.

Dr. PEART exhibited some slides of sputum from several cases of phthisis pulmonalis. These slides were stained and mounted according to the method published in an article by Dr. Heneage Gibbes, in the *Lancet* of October the 5th, 1882, so as to show the bacillus of tubercle contained in the several sputa. The method of staining may be shortly described as follows:—The sputum is thinly spread on a cover glass, and dried in the air; it is then passed rapidly two or three times through or above a gas flame, so as to fix the sputum on the cover. This is then floated for from half to three-quarters of an hour on a solution of magenta containing a definite quantity of aniline, the formulæ for which, and the other solutions required, are given in the above-mentioned article. After remaining the proper time in the magenta solution, the cover is taken out and washed in dilute nitric acid of one-third the commercial strength, till all the colour disappears from the preparation. This is then washed well in distilled water, when probably a little colour will return. If this is only slight it

may remain ; but if a decided colour return, the washings in acid and then in distilled water must be repeated till a satisfactory result is obtained. The cover is then floated for about five minutes upon a saturated watery solution of chrysoidin, and again washed in distilled water. The chrysoidin stains everything brown but the bacilli, and so serves as a contrast to those from which alone the magenta colour has not been removed by the nitric acid. The cover may now be placed on a slide and examined, or may be permanently mounted, by washing it in absolute alcohol to remove the water, then drying it and mounting in a solution of Canada balsam one part, spirit of turpentine one part, chloroform one part. A minute quantity of this is placed upon the dried and stained sputum, near the edge of the cover, which is then carefully laid upon the slide, the edge first. The slides exhibited had been prepared and mounted in balsam about ten weeks, and though the depth of the staining had diminished somewhat in this time, yet the bacilli were distinctly visible under the eighth of a inch object glass.

The PRESIDENT referred to the time of the next (December) meeting, and said he thought it would be well to hold it a week earlier, as by so doing they would be honoured by the presence of Dr. Ord and Mr. Hill, the Foreign Examiners of the University of Durham, who would be in Newcastle at that time.

On the motion of Mr. BROADBENT, seconded by Dr. MACLAGAN, it was decided to hold the December meeting on the 7th December, *i.e.*, the first Thursday of the month instead of the second.

EXHIBITION OF PATIENTS.

Mr. MORGAN showed a girl on whom the supra-condyloid operation for genu valgum had been twice performed. After showing photographs of several cases in which (1) the operation had been the removal of a wedge-shaped portion of bone, and (2) simple division of the femur in its lower chord. Mr. Morgan said that although the results in these cases had been good, in his opinion the supra-condyloid osteotomy, as practised by McEwen, was a greatly superior operation. The patient now shown was 16. She had been admitted into Sunderland Infirmary in February, 1881, with double knock-knee, so aggravated that she walked with great difficulty. Photograph No. 1 shows her state. She was operated upon by supra-condyloid osteotomy, and discharged with straight limbs on April 22nd. Photograph No. 2.—Within a year however, the deformity returned as badly as at first. Again the operation was done ; and this time especial care was taken that

the straightening should not be at the expense of the lateral ligaments (which may have been the case in the first operation?), but that the bones should be quite divided. The result has left nothing to be desired.

Mr. PAGE showed a patient and said: It is now, sir, a good many years since you showed at a meeting of this Society a case of excision of the hip, and I believe I am correct in saying it was the first operation of the kind which had been performed in the Newcastle Infirmary. Comparatively few other excisions of the hip have been performed here—fewer, I think, than perhaps one might have expected, and it is partly on this account that I desire to draw attention to this case. It is now some three months since this little girl, aged twelve years, was admitted to the Infirmary under my care, suffering from very rapidly progressing disease of the right hip. She was in constant pain and exceedingly thin. There was a good deal of swelling about the hip from a collection of deeply-seated matter. Rest, extension, with careful nursing and feeding, continued for a fortnight, did not improve the child's condition in the least. On August 31st, the head of the femur was excised, and from that day she has steadily improved. To-day, ten weeks after the operation, she is able to bear her weight on the limb, the joint is moveable, her general condition is satisfactory, and she is fast gathering flesh. There is still a sinus, but the discharge from it is diminishing, and in a short time I have no doubt it will be closed. I think the result is highly encouraging, and I should be very glad if members of this Society meeting with cases of hip joint disease would be kind enough to send certain of them to the Infirmary, so that we may have an opportunity of testing the operation on a more extensive scale than hitherto we have done.

Dr. DRUMMOND introduced a patient suffering from symptoms of Ménière's disease, and said: This young woman, Mr. President, who is 29 years of age, appears to be the subject of a rare and interesting complication of maladies. She has the signs of aortic regurgitation and of a thoracic aneurism, and, in addition, well-marked symptoms of disease of the semi-circular canals of the left labyrinth. Her aortic symptoms are of about three years' duration. About two and a half years ago she became suddenly affected by a numbness and partial loss of power in the right arm, which, however, soon passed off. Subsequently she took epileptic fits, but has not had any for a year or so. Her labyrinthine symptoms only developed a month before her admission to hospital—she was admitted on the 24th October—and commenced with severe pain in the left parietal region, extending to the left temple. This pain, which was very intense, was accompanied by giddiness

and a feeling of nausea, and in a day or two a "buzzing" was observed in the left ear. Within a week from the commencement of the attack she was "stone deaf" on the left side. At present the patient almost constantly experiences a sense of giddiness, along with a loud noise in the left ear, like "the sound of an engine on board a steamer." She staggers like a drunken person when she attempts to walk, and shows a tendency to fall forwards when sitting or standing. In many ways the case presents the features of the recorded cases of Ménière's disease, or an affection of the semi-circular canals; but in one respect it differs from most of the cases, and that is in the fact that the giddiness, nausea, noises in the ear, and other subjective symptoms of labyrinthine disease did not disappear when the sense of hearing was quite lost.

Dr. OLIVER asked whether it was not possible, seeing there was thoracic aneurism, to account for some of the symptoms by pressure on the left pneumogastric nerve. The pneumogastric and auditory nerves were intimately connected with each other by means of a direct communicating branch, and it was possible to see how irritation of the pneumogastric might disturb to a very great extent the functional activity of the auditory.

ON THE INFLUENCE OF "HYSTERICAL" NEUROSIS ON THE ELASTIC CONTRACTILITY OF THE HAIR.

By J. F. LE PAGE, L.R.C.P., &c.

The use of a term so utterly indefinite, and so pathologically incorrect, as Hysterical Neurosis demands an explanation, if not also an apology. I use the very objectionable name from simple necessity, for how shall we refer, excepting by its cognomen, to a disease of which the science of morbid anatomy is ignorant. A disease of the nature of which we know absolutely nothing. Of the existence of which we are cognisant solely by its multifarious, its heterogeneous, and its marvellously capricious manifestations. Which we still designate hysteria, although fully aware that it is not only met with in women, but also in men, who have no hysteria, and amongst whose functions ovulation is unknown. A disease which has nothing in the world to do with the uterus, being neither caused nor, as a rule, increased by the exercise of its functions, or the development of its diseases. Whilst, then, using a term which is a disgrace to our nomenclature, I wish by it to be understood to refer to a disease of the nerve centres, the peculiar characteristic of which is its simulation in turn of almost every other disease; its mimetic effects producing pseudo diseases *ad infirmitum*; which is often aggravated by some affections of the ovaries; and which is characterised by hyperæsthesia or anæsthesia, and frequently by perversion of the intellect, and exaltation of the emotions. In it the functions of the nerve centres are so disordered that centric hyperæsthesia gives rise to false impulses and incoherent reflexes, which derange the whole mechanism of life. That this is a general disease of nerve centres I think admits of positive proof, but the argument would lead far beyond the limits of this paper.

The hyperæsthesia and hyperæmia furnish evidence of centric excitement, and a limited area in a condition of exalted nervous and vascular tension is often contiguous to a surface under opposite neurotic influences, evidenced by anæmia and anæsthesia. Now these opposed conditions are very frequently met with in the scalp, and it is to an effect produced there that I at present wish to direct special attention. An effect pregnant with interest, from a physiological as well as a pathological point of view; and which, I believe I am correct in saying, has not hitherto been recognised.

Human hair is not, so far as we at present know, supplied with nerve fibre, excepting in some rare cases of plica amongst Poles, and we shall assume that it is not so supplied; but, from observa-

tion I am entitled to assert that it is both capable of receiving and of conducting nerve-force. That the tissues of the body generally, indeed, not only organised tissues, but even inorganic matter can transmit this vital energy from part to part, without nerve connection as conductors, is capable of demonstration. And this phenomenon is especially likely to occur when the amount of that form of force which we designate nerve-force, transmitted along a motor nerve, is greater than that which can be converted into muscular force at its termini, or, as it were, consumed in muscular spasm, or when the energy is voluntarily directed. Of this fact a settled conviction remains on my mind which outweighs the perhaps wholesome, but too definite, scepticism of our profession.

In two or three neurotic cases in which hyperæsthesia and anæsthesia of proximate portions of the scalp were amongst the most prominent symptoms, I have been struck by the altered appearance of the hair in one part, or at one time, as compared with another, apart from changes in the humidity of the atmosphere, lying smooth and lank or unusually curled; but not until very recently has a case come under my notice, which I could regard as both typical and illustrative of the facts I wish to establish.

Jane Holmes, aged 17 years, consulted me on September 30, 1882. She stated that she had for six or seven days felt ill, complaining of numbness, more or less general, and that on the 29th September she suffered all day from severe headache, affecting chiefly the brow, together with "pins and needles" over the scalp. In the evening she washed her head in new-milk-warm water. After partially drying the hair with a towel (she did not approach a small fire which was in the room), she commenced combing it out on the *left* side, and whilst so engaged, in the presence of her parents, nearly the whole of the hair on the right side of her head drew up into a hard lump, "and felt as though it would pull the roots out." Her father and mother were engaged until nearly two o'clock the next morning in the endeavour to untangle and straighten the almost solid mass, but with very little success. The few ends combed out were spread on the pillow. She then slept, and on awaking found them drawn up as before. On examination I found the hair on the left side of her head, which measured 3 feet 1 inch in length, quite smooth, very slightly waved, and not in the least tangled or drawn up. On the right side, extending to nearly the median line behind, and to within an inch of the forehead, the whole mass was drawn up into a *hard*, tangled lump, which it was impossible to unravel. The appearance, under the microscope, of individual hairs is quite natural, but a very significant fact is brought to light: All the hairs which are contracted, closely curled, and intertwined are

flat, whilst those hairs which remain comparatively straight, or looped and festooned, are round. This alone completely disposes of the shadow of suspicion which naturally accompanies any unexplained phenomenon in an "hysterical" female. Viewed without the microscope, it is at once evident that no dexterity could have produced the most interesting and remarkable condition. The parents of my patient, who are intelligent and reliable, affirm that the contraction, which they witnessed, was effected in three or four minutes. Unlike "felting," it is both hard and circumscribed; the natural length—37 inches—being reduced to 6 or 7 inches. Menstruation commenced when she was 16, and was irregular until six months ago, since which time she has not menstruated. Appetite fairly good. Habits sedentary. Treatment:—Arsenic iron, and pil. aloes cum myrrh.

We observe here the ordinary evidences of so-called hysteria. The irregular and then suspended menstruation; characteristic pains—frontal headache, prickling of the scalp, &c., constituting a group of neurotic symptoms aggravated, not by the absence of the uterine function, but by defective or suspended ovulation. We notice the areas under different conditions of nervous and vascular tension; the "pins and needles," which we refer to the hair bulbs; the sensation of tearing the hair out, which we account for by spasm of the little muscles of the hair follicles. But, in addition to all this, we have the very remarkable contraction and binding together of the hair. Let us see to what extent the one is the effect of the other—in how far this contraction is the result of the abnormal nervous tension which we have seen exists. To make my argument more clear, I shall very briefly review one or two of the diseases of the hair.

In *trichoclasia* the hairs effected are marked with two, three, or more white bulging spots. On traction the hair easily breaks off at these little white spots. There is no evidence whatever of the presence of fungus; and Biegel suggests that gas is generated in the medullary substances of the hair at these spots, causing it to swell and burst.

When hair turns white naturally, that is with age, the pigment in the formative cells is altered, or entirely absent. This is a senile change. But many well authenticated cases are on record in which the hair has been changed to silvery whiteness in a few hours. In all such cases the change took place whilst the individual was under the influence of grief, terror, or other powerful emotion. Dr. Liveing considers that "the only possible hypothesis yet suggested is that, under certain peculiar circumstances, the perspiration may acquire powerful blanching properties." This hypothesis is certainly untenable, for just that portion of the hair which is bathed in the supposed bleaching perspiration would, in

that case, be blanched, whereas the striking peculiarity of these remarkable cases is that the whole length of the hair undergoes a sudden change in colour.

That the supply, or absence, of pigment is under the control of the nervous system is exemplified by cases in which chronic neuralgia of the scalp produces whiteness of the hair, corresponding with the distribution of a particular nerve ; but here the hair *grows* white from an arrest of pigmentary development. And here we see an important difference from that blanching which is sudden, and extends over the whole length of the hair. No theory yet proposed will bear the light of facts. It is impossible to suppose that the whole amount of pigment contained in long hair, can, in three or four hours, be entirely withdrawn ; and it is too absurd to imagine that in an equally short time presumed sweating of the scalp is effective in bleaching the whole length of the hair. A cause more consistent with common sense must be looked for. Now, bearing in mind that these changes are always associated with strong emotions, that is with central disturbances increasing nervous tension, my hypothesis is that the unwonted presence of nerve-force in the medullary portion of the hair gives rise to chemical change, that is to say, electrolysis in the pigmentary matter therein contained, which, without one particle of that matter being removed, complete its refractive power, and, as a necessary result, a pure white is seen. If this theory be accepted, the explanation of the nature of the contraction in the foregoing case is by no means difficult, for it has been demonstrated that the medulla of hair in many cases contains gas in minute quantities. I argue that the excessive nerve-tension found vent through the hair bulbs, which are surrounded by nerve fibres, into the hair itself ; and there, the contained gas being in a condition favourable to the change, effected a chemical process in every way resembling that of electrolysis. The immediate result being considerable diminution in the bulk of the medullary portion, and, as an essential sequence, contraction or curling up of the flat hairs.

I believe it has fallen to me to be the first to place on record a case of neurotic plica.

Sir Erasmus Wilson, to whom, as our greatest authority on skin diseases, I communicated the foregoing case, and who has examined the hair microscopically, regarding the condition as very interesting and extraordinary, and as never before seen by himself, has desired and received my permission to deposit the hair in my name in the dermatological department of the Museum of the Royal College of Surgeons of England.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

THE THIRD MONTHLY MEETING was held in the Library of the Newcastle-on-Tyne Infirmary, on Thursday, December 7th, 1882—the President (Dr. Arnison) in the chair.

The following gentlemen were elected members of the Society:—

A. E. Harris, L.R.C.P. & S. Edin., Sunderland.

C. S. Kilham, M.R.C.S. Eng., L.R.C.P. Lond., Chester-le-Street.

John Whitehouse, M.R.C.S. Eng., Sunderland Infirmary.

Hugh Hopper, L.R.C.S. Edin., Felling-on-Tyne.

E. F. Flynn, L.R.C.S.I., Sunderland Infirmary.

The following gentlemen were proposed for election:—

Walter Murray, M.B. Edin., Haydon Bridge.

Henry Talbot Rathbone, L.R.C.P., L.R.C.S. Edin., Hudson Street, South Shields.

PREVALENT DISEASES OF THE DISTRICT.

Mr. HENRY E. ARMSTRONG submitted the following:—

Return of Admissions to and Deaths at the Newcastle Fever Hospital during the month of November, 1882.

	Admitted.	Died.
Smallpox	51	11
Typhus Fever	26	6
Enteric Fever	1	0
Total.....	78	17

Dr. PHILIPSON expressed his opinion that the only way to counteract the evil of the present epidemic of smallpox, and the prevalence of typhus fever, was the complete segregation of those affected; and, in the case of the former disease, the enforcement of vaccination, and the recommendation of re-vaccination where it was deemed necessary. He was quite aware that the authorities of the city were fully impressed as to the importance of such action; and, however satisfactory the Hospital on the Moor might be temporarily, yet he felt convinced that the chairman and members of the Sanitary Authority would never rest satisfied until a permanent hospital for the reception of contagious diseases was erected commensurate with the requirements of the city.

Dr. ANDERSON said; In reference to Mr. Armstrong's remarks

on the fact of there being a prevalence of cases of chicken-pox and other eruptive affections concurrently with the existence of small-pox, I have also observed the same thing in connection with an outbreak of smallpox at North Seaton Colliery, which was mentioned by me last session, and a record of which would be found in the transactions of the Society. During the existence of that epidemic the occurrence of numerous cases of chicken-pox, acute eczema, erysipelas, and no fewer than 4 or 5 cases of herpes zoster were observed. It would be very interesting to know if any such occurrence had been observed by others, as it might lead to useful results.

Dr. ARNISON said the Medical Officer of Health published each year a very valuable report on the sanitary condition of the city, and suggested that Mr. Armstrong should try to obtain permission from the Sanitary Authority of the city to furnish every member of the Society with a copy.

Mr. ARMSTRONG said he would see what could be done in the direction of giving his report a more extended circulation.

PATHOLOGICAL TRAY.

Dr. ARNISON showed three urinary calculi—the first removed by lithotomy from a man of 64. The stone was so soft that it crumbled to dust in the forceps, and had to be removed partly by forceps, partly by the scoop, and partly by irrigation, the operation occupying an hour, some *debris* being left in the bladder. Cystitis was present before the operation, and continued for some time afterwards. It was treated by irrigation with diluted Condry's fluid, and afterwards with a weak solution of nitrate of silver. The muco-pus by degrees disappeared, and the urine became healthy. The *debris* of the stone was nearly all washed out under the treatment, and one or two small fragments were withdrawn by Bigelow's apparatus after the wound healed. When the patient left the hospital no fragments could be felt in the bladder, the total weight of all that could be found was 240 grains. The second stone was also removed by lithotomy from a delicate boy of 12. Difficulty was experienced in the extraction from the size of the stone, and it was necessary to enlarge the prostatic wound. The boy's condition after the operation was variable, but never quite satisfactory, and he died four weeks after the operation. Size of stone (uric acid) 2 inches long, $1\frac{1}{2}$ inches broad, and $\frac{7}{8}$ of an inch thick; weight, 540 grains. The third, a small stone in fragments, removed by lithotomy and Bigelow's apparatus from a man of 58 years, a patient of Dr. Todd, of Gateshead. The case was doing well.

Dr. ORD, of London, said he was much interested in the subject of vesical calculi. The first stone shown by Dr. Arnison was especially interesting to him on account of its collapse in the bladder. From his observations he was led to believe that most calculi fell away radially, others burst by swelling of the nucleus, whilst others pulverize by contact with other calculi. He would like to know the nature of the calculus that collapsed.

Mr. WILLIAMSON referred to the case of a boy who had been in the Infirmary with stone in the bladder, which broke up spontaneously and passed by the urethra.

Dr. PHILIPSON presented a specimen of mitral stenosis. He said that the patient, a man, aged 36, had been under his care in the Newcastle-upon-Tyne Infirmary for three weeks previous to his death. He had suffered from urgent dyspnœa, palpitation, cough, and hæmorrhagic expectoration. He was jaundiced and was dropsical. Upon physical examination, a grating presystolic murmur was heard at the left apex, also in the line of the left axilla, but not at the lower angle of the scapula, nor at the third left costal cartilage. There was a presystolic thrill. There was evidence of hypertrophy. The diagnosis had been given as mitral stenosis. At the autopsy, the mitral valve was found to be contracted, the orifice being button-holed and capable of admitting one finger. The left auricle was dilated and thickened. The right ventricle was considerably hypertrophied. The lungs were both congested. The liver was in the condition resembling nutmeg.

Dr. PHILIPSON stated that cases of mitral stenosis were now more frequently recognised during life. Last year he presented a specimen of the condition, which had been diagnosed during life. He thought it was very important that the time of the occurrence of the murmur should be distinctly recognised, as presystolic, or more properly auricular systolic; also, that the murmur was heard at the left apex, in the line of the left axilla, but not at the lower angle of the scapula, nor at the third left costal cartilage; also, that the murmur was grating in character, and was associated with a presystolic thrill.

Dr. OLIVER said he would like to know if pulsating liver existed in Dr. Philipson's case. He thought the specimen one of great interest, and quite agreed with Dr. Philipson's remarks about the presystolic murmur. Professor Gairdner, of Glasgow, was one of the first in the profession to draw attention to the presystolic murmur and its relation to mitral stenosis—and as an old student of his, he (Dr. Oliver) would say that he frequently pointed out this murmur to the class in the wards upstairs. He could not understand how Professor Harvey, of Aberdeen—perhaps the greatest opponent to the causation of the presystolic murmur—

could remain ignorant of the effects of an anatomical or pathological obstacle to the circulation of blood, such as was so well seen in the button-hole contraction of the left auriculo-ventricular orifice. Dr. Harvey always maintained that even if the conditions existed at the left auriculo-ventricular orifice for the creation of a murmur, that murmur could not be heard from the feeble contractions of the auricle. In Dr. Philipson's case there existed all the conditions necessary, viz., a narrowed, roughened orifice, dilated and hypertrophied auricle; and these, Dr. Oliver said, were recognized as the usual anatomical factors in the causation of murmurs at other orifices of the heart, and surely the result here must have been the same.

Dr. McDOWELL exhibited a thrombus occupying the lower portion of the abdominal aorta and the pelvic vessels. The specimen was obtained from the body of an elderly woman, suffering from dementia, and who had been confined to bed for several months on account of feebleness due to chronic phthisis. On the morning of the 11th November, the nurse observed that the lower eyelids were very slightly puffy, and also the back of the left hand; the patient took her food rather badly during the night, and at night visit complained of pain in the left hip. The œdema of the lids and hand could not then be observed. No special cause of pain could be discovered, but the legs were very cold and the left one motionless. As no pulsation could be felt in the femoral or posterior tibial arteries, thrombosis of the abdominal aorta or pelvic vessels was diagnosed. During the night she attempted to get out of bed, but at once fell on her knees, thereby causing a slight abrasion on one of them, but no other visible injury. On the morning of the 12th, however, the stain round the hips and waist presented a curious appearance, and may be most accurately described by saying that it was exactly like *post mortem* lividity, but not quite so copious, being distributed like the rash of measles. In a few hours after its first appearance it had become confluent over most of the affected area, which began at the lower ribs, and extended almost to the knees; there were also small patches on the soles of the feet. There was no difficulty in confirming the diagnosis arrived at, though the appearance might have given rise to a suspicion of bruising had the history or the examination been imperfect. Such mistakes have been made, as a reference to books in medical jurisprudence will show. Before night her condition was very serious. She was collapsed; respiration hurried and distressed; no pulse could be felt, and she gradually sank, and died at about midday of the 13th. On cutting the skin of the abdomen it was at once evident that there was no bruising, but that the appearances were due to coagulation of the blood in the vessels. The specimen exhibited was then removed. It will be

seen that the lower portion of the abdominal aorta is completely filled by a firm fibrous clot. This clot must be of some age, for it is somewhat ruptured in the middle. The clot passes into all the branches of the iliaes, but it was not traced further than the common femorals, though it was probable that it passed along these vessels, and far down each leg, if not to each foot. The clot in the iliaes and beginning of the femorals is firm and well-organised, but red, and evidently not so old as the portion in the aorta. A large patch of atheroma was evidently the cause of formation of this clot. A portion of it can be seen distinctly, but its exact size has not been made out; to do so would injure the specimen.

Dr. GOWANS said: These sections, Mr. President, were made from the liver of a gentleman who died from cirrhosis of that organ. On my first visit he was confined to bed. He had œdema of the lower extremities, ascites, his abdomen measured 40 inches in circumference, and the abdominal veins were considerably enlarged, and he was emaciated. He stated that he had lived abroad for some years. His habits had been irregular, and he had taken alcohol, chiefly gin, to excess, sometimes so much as two bottles in the day. By the use of purgatives and diuretics, together with a careful diet and abstinence from alcohol, the dropsy disappeared, he gained flesh, and his general health improved. He resumed his ordinary work, and unfortunately (shortly afterwards) his intemperate habits as well, which was followed by a return of his previous symptoms. These were not now amenable to treatment, so that I found it necessary to tap the abdomen. This operation I performed on six subsequent occasions, using Southey's trocar, which I now show you, as it possesses many advantages over the ordinary trocar. The fluid takes eight or ten hours to flow from an abdomen distended to its extremest size. This prevents faintness or shock arising, and the patient can sit in any posture, or lie down in bed, as the tubing fixed to the small cannula permits this without interference with the slow flow of the fluid. Symptoms of acholia developed in my patient, which were for some months successfully combated by means of the citrate of caffeine. Ultimately he died, insensible and exhausted, nine months from my first visit. On examining the liver after death it was found to exhibit the ordinary hob-nailed appearance, without being much decreased in size. Its ligaments were extremely lax, allowing the organ to be dislocated backwards and downwards, a condition which was recognised during life, as it was found to float and move in the fluid. A microscopical examination shows great hypertrophy of the interlobulæ areolar tissue.

EXHIBITION OF PATIENTS.

Dr. OLIVER said: You will remember that at one of our meetings last year Dr. Gowans exhibited the first case of myxœdema brought before this Society. To-night, I bring before you two patients who present most of the features met with in the disease in question, and, in doing so, I would remind you that we are honoured by having amongst us Dr. Ord, of St. Thomas' Hospital, a gentleman who has not only contributed largely to the literature of the disease, but who gave it the name it now bears. While, therefore, I shall draw the attention of the members to the features of the malady, I shall, with Dr. Ord's kind permission, leave it to him to say a few words upon its pathology and treatment. Both of these women are aged 44. This one (Wheatley)—the more typical case of the two, came to my out-patient department of the Infirmary about five weeks ago, complaining of a numbness and swelling of her hands, of a swollen face, and of a sense of weight and pain in her head. At present, as you see, the face is swollen and expressionless, it does not pit on pressure, and on either cheek there is a well-marked red blush. The eyelids are puffy, but do not pit on pressure; the skin is semi transparent over them. So far as the swelling of the lids is concerned, it may be said that the upper are generally much more puffy than the lower, a fact which would not be the case did the swelling depend upon the presence of the fluid met with in an ordinary œdema. The nostrils are widened and swollen. Both lips are remarkably swollen, and patient is unable to close them properly, for frequently the saliva dribbles away when patient is lying down at night. The hands are swollen, and the skin over them, as over the body generally, is remarkably harsh and dry. Her sense of touch is imperfect; a darning-needle or a small coin, placed between her fingers, cannot be felt as such, and unless her eyes are directed towards the objects so placed, she would not know that they were there. The prick of a pin is slowly realized as pain. A sense of numbness is complained of in her feet. When walking she feels the ground rather soft. Her gait is peculiarly tottering and insecure. On a few occasions she has fallen, and as a result she is now in constant dread of being knocked over when she is out of doors. Her memory is not so good as formerly, and her speech is remarkably slow. In short, there is a general diminution of that ready receptiveness of external impressions met with in health. The sounds of the heart are healthy; the 2nd is markedly accentuated. The urine has a low specific gravity, 10·10, and, though frequently examined, no trace of albumen has been found. Temperature in the axilla is low, never higher than 96·5. The other case, Robinson, is not so marked a case of myxœdema, but she presents most of the symptoms just described. I should like to hear Dr. Ord's opinion

upon the treatment he has found most beneficial, as small doses of iron with liq. ammon. acet. and spt. ether nit. have been of benefit in both these cases.

Dr. ORD said : Mr. President and Gentlemen, — Dr. Oliver's thoughtful courtesy demands my best thanks. He was good enough to tell me some time ago that he would show me two cases of myxœdema when I should visit Newcastle. The patients whom, by his kindness, I have been able to examine this evening present in very typical forms the character of myxœdema. As Dr. Oliver has indicated, the patient Wheatley has reached a distinctly more advanced stage than her coeval in years, but in both the leading lines may be traced. Both are bulky to unweildiness ; in both the face is markedly dropsical of look, suggesting the existence of renal disease ; in both, however, as Dr. Oliver informs us, the urine is, on repeated examination, found to be free from albumen. Dr. Oliver has well pointed out the special character of the facial œdema. You will observe the translucency of the swollen skin, the thickening of both eyelids, the broadening of the nose and its alæ, the flush (so curiously limited) on the cheeks, contrasting vividly with the pallor of the circum-orbital space, the excessively raised eyebrows, and wrinkled forehead, and the thick-lipped expressionless mouth. He has pointed out the loss of expression in the face, and the fact that the swelling does not pit on pressure. I may ask you to observe that the supraclavicular regions are singularly tumid and resilient in Wheatley, and that no trace of a thyroid body can be felt. When I ask her to speak you note the somewhat laboured and slow articulation, the monotony and nasal quality of the voice. If you look into the fauces you see the same œdema as is present in the features. You will see also that the teeth are few and ill-nourished. You will note in relation with this the scantiness, brittleness, and raggedness of the hair. The dryness and roughness of the skin, the absence of perspiration, and the low surface temperature noted by Dr. Oliver are all essential parts of the disease. So also are the slowness of sensory perceptions, the almost ataxic gait, the tendency to fall, and the mental hebetude and loss of memory. The retardation of sensory impulses, the bradæsthesia, as I have ventured to call it (and why not, seeing that Molière has coined a like word in bradypepsie?) is perhaps one of the most interesting accompaniments of the œdema. Wheatley shows besides, or rather in association with this, a distinct retardation of the knee-jerk. I have of late examined all the myxœdematous people coming under my notice with particular care in respect of the knee-jerk, seeing that they present a kind of ataxy. So far I do not find that it is absent. It is present in both the patients under

observation—in about the natural degree in Robinson, retarded in Wheatley. The quasi-ataxy, indeed, appears to be rather a matter of retarded impulses than inco-ordination, as seen in true ataxy. The motor impulses seem to be retarded unequally, or groups of muscles are unequal in their tone; so that here a group of flexors will act, in a movement where they should co-ordinate with extensors, a trifle too soon. They bend, for instance, the knee when it should be extended; and then, both too late and too soon, the extensors act, arrest the movement, and produce a fall or a rupture of the patella or its ligament. In the first case of myxœdema which I ever saw, both patella ligaments had been broken in succession without the receipt of a blow. In the gait of these people a curious, almost dignified, quivering movement accompanies each forward step, clearly dependent upon imperfect adjustment of the action of flexors and extensors. With the impairment of common sensation we may associate the diminished surface temperature. These patients, like Cretins, feel utterly miserable in cold weather, and are painfully conscious of its malign influence on them, but they are not as conscious as ordinary people are of sensations of cold in an exposed surface. The mental changes here noticed belong to a group generally present. We find all degrees of mental impairment—from failure of memory onwards, through irritability and suspiciousness, up to actual insanity. The morbid anatomy of the disease, so far as my observations go, consists in a generally present, but not always equally developed, swelling of the connective tissues of the body, which become pervaded with a mucin-yielding, inelastic jelly. The swollen and incompressible connective tissue appears to compress, encroach upon, and produce atrophy of the tissues of various parts. Thus the skin is dry because its secreting structures are compressed; the hairs are badly nourished and fall out because their bulbs are compressed; so also with the teeth. In the great viscera the same process is seen; in the liver the cells are like islands in a sea of swollen connective; in the kidneys changes resembling very closely those of the contracting granular kidney are found; and in the nervous centres augmentation of connective and wasting of nerve tissue can be clearly seen. The definite association of symptoms of nervous failure with the progress of myxœdema has led some observers to attribute the disease altogether to primary affection of the nervous system. I am, personally, rather inclined to a tissue-view than to a nerve-view, but must admit the force of much that is advanced on the other side. In fact, I should like to wait longer before forming a decisive opinion. The disease is one belonging, in my experience, much more to women, and women at middle age, than to men; but it is right to say that our distinguished colleague,

Dr. Andrew Clark, has an experience to the contrary, namely, that more men have come to him than women suffering from myxœdema. I have never been able to trace the disease to sexual derangements, to alcohol, or to syphilis. As it terminates in many cases with renal conditions like those of the contracted granular kidney Dr. Mahomed has argued that it is to be regarded as but a form of Bright's disease. This suggestion is, I think, utterly negatived by the clinical history and order of symptoms. As regards treatment: For many years—it is now nearly twenty years since I first began to recognise these cases—it appeared to me that nothing would arrest the progress of this disease. Warmth seemed the best of all remedies, but warmth such as sunlight only can give, is not always to be had; and winter always did more harm than summer could repair. Iron, quinine, arsenic, and other tonics often gave temporary relief; but, if circumstances did not forbid their use beyond limited periods, they came in time to have no effect. The steady downward progress which I have noticed in my cases, leading at one time to a prospect without hope, has not found its parallel in Dr. Andrew Clark's experience. He speaks of the disease, as he has chiefly seen it in men, as of a curable kind, diet playing an important part in the cure. But diet has failed in the women whom I have seen. Dr. Mahomed has used nitro-glycerine with, as he believes, much good result. Of late I have been using jaborandi, and with most encouraging response. In every case the action of the skin has been more or less restored, the œdema has been lessened, the torpor and other nervous symptoms have yielded. In two cases, something which, so far, I may call a cure, has been effected; in several others a marked reversion towards health has been obtained; so that now I venture to prescribe the drug with considerable confidence. I give it in the form of the tincture. At first 30 drops are given in a teacupful of water three times a day. The dose is gradually increased to 90 or 120 drops, according to the amount of action of the skin obtained. The treatment is continued during many months, or even into years. The sensation of relief comes early; often long before any change in appearance or mental action. But if it be obtained, it gives us a promise of further improvement, which justifies persistence in the use of the remedy. I prefer in this, as in other drug-giving, to give the medicine by the mouth, rather than by sub-cutaneous injection. As a principle, I believe it better to use natural avenues than to introduce remedies by means of a surgical operation. And so long as the stomach can receive and dispose of remedies without destroying their activity, I shall always let patients (who can swallow) swallow them. Lastly, gentlemen, the thanks which I owed to Dr. Oliver I feel are now due also to you for the patience with which you have listened to

my remarks, and for the great kindness with which you have received me here.

Dr. GOWANS said: I consider myself extremely fortunate in being present this evening, and thus having the opportunity of hearing Dr. Ord expound his views of the disease to which he has given the name "myxœdema." As some of you know, it is a disease which has engaged my attention for the past ten years; and, as Dr. Oliver has so kindly mentioned, I had the opportunity of introducing a well-marked example of this singularly interesting condition to the members of the Society last year. When the patient first consulted me ten years ago, I thought from her appearance that she was the subject of renal disease, but repeated examinations of her urine, which invariably demonstrated the absence of albumen, casts, or kidney *debris*, with the peculiar nervous phenomena which developed, caused me to consider the brain as the *fons et origo mali*. Last year I had the pleasure of reading Dr. Ord's lecture, and recognised, from his description of the condition which he then termed myxœdema, as the same condition which my patient so long had presented. There is only one point I should like information upon, and that is, has Dr. Ord examined the blood of his patients. My reason for asking this question is that one of my patients suffered from severe hæmorrhage after having a tooth extracted; there appeared to be a want of coagulating power in the blood. My patient appeared to derive great benefit from the tincture of the muriate of iron, along with strychnia and phosphoric acid. Both the cases presented by Dr. Oliver are well-marked examples of the disease, and I am pleased to have had the opportunity of seeing them.

Mr. HAWTHORN asked, with respect to the etiology of the disease, whether syphilis and intemperance had anything to do with its production.

Dr. PHILIPSON expressed the gratification he had experienced at the lucid description of Dr. Ord. As an allusion had been made to the association of enlargement of the thyroid body, in certain of the recorded cases of myxœdema, he thought it right to inquire of Dr. Ord whether he had any experience of the administration of ergot in these diseases. He was able to support Dr. Ord as to the value of *jaborandi* and of its active principle, *pilocarpine*, in the treatment of dropsy, whether internal or external.

Mr. WILLIAMSON said: Mr. President—This patient was corking a small bottle about five weeks ago, when the bottle broke in his hand, and an angular pointed piece of glass entered the palm. He says that at the moment of the accident he felt part of his hand become suddenly numb and powerless. He went at once to a surgeon, who probed the wound, and finding no glass, the hand

was bound up. The wound healed quickly, and the scar now seen at the root of the thumb shows its position. Sensation is lost over an area that corresponds exactly to the distribution of the median nerve in the palm; but the branch which bifurcates to supply the adjoining sides of the middle and ring fingers has escaped, as sensation there is not lost. Bordering the anæsthetic area is a well-marked line of hyperæsthesia. The muscles of the thumb that are supplied by the median nerve are wasted, and give no response to the interrupted current. The *reaction of degeneration* is perfectly shown when the continuous current is used. The outer side of the hand is much colder than the inner—this is obvious to the touch—and it is dry, whilst the inner side is damp with perspiration. The epidermis is peeling from the affected parts. Comparing the hand with this beautiful plate of Hirschfield's, it is clear that the median nerve has been partly divided at its enlargement in the palm, the branch to the middle and ring fingers escaping. Is it desirable to cut down on the nerve, and freshen the ends and stitch them together? It appears from experiments on animals that when a nerve is cut little branches shoot out from the nerve fibres of the proximal end, and if they reach the distal cut end, they penetrate into it and the powers of the nerve are gradually restored. Dr. Drummond has mentioned a case to me in which union of the ulnar nerve took place after an inch and a half of the nerve had been cut out. My own opinion is rather against operating, as the divided parts will be in close apposition, the division of the nerve being only partial. But I shall be glad of any suggestions on this point, and in particular I have ventured to promise the patient that he should have the opinion of our distinguished visitor, Mr. Berkely Hill.

Replying to Mr. Hill, Mr. WILLIAMSON said: I am particularly interested in what Mr. Hill has said, because the points that have led him to advocate operation had previously led me to the opposite conclusion. May not the peeling of the skin be due to an increase of vitality, and is not the enlargement of the median nerve at the seat of injury a specially hopeful sign? My view of the treatment is to use frictions, warm applications, and to apply the continuous current. At the same time, I may admit that I should like to do the operation, and I am glad to have Mr. Hill's sanction and authority for doing it.



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BY J. F. LE PAGE, L.R.C.P., &c.